IN THE UNITED STATES DISTRICT COURT FOR THE EASTERN DISTRICT OF PENNSYLVANIA

Broan NuTone LLC, Plaintiff,

v.

Travelers Property Casualty Corp., a Connecticut corporation, and The Travelers Indemnity Company of Illinois, an Illinois corporation,

Defendants.

FILED __ 17 2002

Civil Action No.: 02-CV-4627

PRAECIPE TO SUBSTITUTE AFFIDAVIT

To the Clerk:

Please substitute the attached original signed Affidavits of David W. Wolbrink and Eliot R. Duncan for the facsimile copies of same attached to the Plaintiff's Motion for Temporary Restraining Order or, Alternatively, Preliminary Injunction which was filed on July 12, 2002.

Respectfully submitted,

John E. Hall, Esquire Pa. I.D. No. 11095

Mark E. Gebauer, Esquire

Pa. I.D. No. 79646

Charles F. Forer, Esquire

Pa. I.D. No. 32661

Eckert Seamans Cherin & Mellott, LLC

1515 Market Street, Ninth Floor

Philadelphia, Pennsylvania 19102-1909

Telephone: 215.851.8400

Date: July 15, 2002

Attorney for Plaintiff Broan NuTone LLC

CERTIFICATE OF SERVICE

I certify that a copy of the foregoing Praecipe to Substitute Affidavit was mailed on July 15, 2002, to:

Brian P. Henry, Esquire
Danaher, Tedford, Lagnese & Neal, P.C.
Capitol Place, Suite 700
21 Oak Street
Hartford Connecticut 06106

Travelers Property Casualty Corp., a Connecticut corporation One Tower Square Hartford, CT 06183

The Travelers Indemnity Company of Illinois, an Illinois corporation One Tower Square Hartford, CT 06183

AFFIDAVIT OF ELIOT R. DUNCAN

STATE OF WISCONSIN)
) SS
COUNTY OF WASHINGTON)

ELIOT R. DUNCAN, being first duly sworn on oath, deposes and states as follows:

- I am employed by Broan NuTone, LLC as the Director of Product
 Performance. I am a certified fire and explosion investigator.
- 2. In accordance with NFPA 921, a Guide for Fire and Explosion Investigations, 2001 edition, every attempt should be made to protect and preserve physical evidence from a fire scene, including electrical devices which a party alleges caused a fire. See paragraph 14.3 of the 2001 edition of NFPA 921, attached hereto as Exhibit A.
- 3. Lack of preservation may result in the destruction, contamination or loss of physical evidence. See Exhibit A.
- 4. The destruction of physical evidence from a fire scene can make fire reconstruction difficult for the fire investigator. The analytical or interpretive value of the evidence may be lost. See NFPA 921, paragraph 14.3.4.2.3, attached hereto as Exhibit B.
- 5. It is therefore critically important that the physical evidence (including electrical devices) be maintained so that potential litigants can determine the cause and/or origin of the fire. See NFPA 921, paragraph 21.2.1, attached hereto as Exhibit C. Destruction of the physical evidence, especially an

electrical device which a party alleges caused the fire, eliminates the opportunity for this analysis, and prior photographs of the fire scene or physical evidence in and of themselves many times are not adequate.

- 6. I have been a certified fire and explosion investigator for over 9 years and have personally inspected numerous fire scenes. The preservation of the Broan fan and the attendant marks and condition are critical in an analysis of what caused the fire, and Broan would suffer irreparable harm if Travelers is permitted to conduct destructive testing at this time without a proper protocol in place.
- 7. In addition, prior to conducting any destructive testing, it is important that the parties be allowed to gather evidence concerning the fire so that they know what destructive testing or disassembly should be performed.

Eliot R. Duncan

Subscribed and sworn to before me this <u>N*</u> day of July 2002.

Notary Public, State of Wisconsin

My Commission expires: 614106

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BROAN NUTONE LLC

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FIRE AND EXPLOSION INVESTIGATIONS

Table 13.4.6 Design and Construction Drawing That May Be Available

Туре	Information	Discipline
Topographical	Shows the varying grade of the land	Surveyor
Site plan	Shows the structure on the property with sewer, water, electrical distributions to the structure	Civil engineer
Floor plan	Shows the walls and rooms of structure as if you were looking down on it	Architect
Plumbing	Layout and size of piping for fresh and waste water	Mechanical engineer
Electrical	Size and arrangement of service entrance, switches and outlets, fixed electrical appliances	Electrical engineer
Mechanical	HVAC system	Mechanical engineer
Sprinkler/fire alarm	Self-explanatory	Fire protection engineer
Structural	Frame of building	Structural engineer
Elevations	Shows interior/exterior walls	Architect
Cross section	Shows what the inside of components look like if cut through	Architect
Details	Show close-ups of complex areas	All disciplines

13.6* Specifications. Architects and engineers prepare specifications to accompany their drawings. While the drawings show the geometry of the project, the specifications detail the quality of the materials, responsibilities of various contractors, and the general administration of the project. Specifications are usually divided into sections for the various components of the building. For the fire investigator, the properties of materials can be identified through a specification review and may assist in the analysis.

Chapter 14 Physical Evidence

14.1* General. During the course of any fire investigation, the fire investigator is likely to be responsible for locating, collecting, identifying, storing, examining, and arranging for testing of physical evidence. The fire investigator should be thoroughly familiar with the recommended and accepted methods of processing such physical evidence.

14.2 Physical Evidence. Physical evidence, defined generally, is any physical or tangible item that tends to prove or disprove a particular fact or issue. Physical evidence at the fire scene may be relevant to the issues of the origin, cause, spread, or the responsibility for the fire.

The decision on what physical evidence to collect at the incident scene for submission to a laboratory or other testing facility for examination and testing, or for support of a fact or opinion, rests with the fire investigator. This decision may be based on a variety of considerations, such as the scope of the investigation, legal requirements, or prohibition. (See Section 9.2.) Additional evidence may also be collected by others including other investigators, insurance company representatives, manufacturer's representatives, owners, and occupants. The investigator should also be aware of issues related to spoliation of evidence.

14.3* Preservation of the Fire Scene and Physical Evidence. Every attempt should be made to protect and preserve the fire scene as intact and undisturbed as possible, with the structure, contents, fixtures, and furnishings remaining in their pre-fire locations. (See Figure 14.3.)

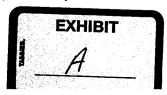
FIGURE 14.3 Physical evidence at a fire scene. Evidence such as this small paper match could easily be destroyed or lost in an improperly preserved fire scene.



Generally, the cause of a fire or explosion is not known until near the end of the investigation. Therefore, the evidentiary or interpretative value of various pieces of physical evidence observed at the scene may not be known until, at, or near the end of the fire scene examination, or until the end of the complete investigation. As a result, the entire fire scene should be considered physical evidence and should be protected and preserved.

The responsibility for the preservation of the fire scene and physical evidence does not lie solely with the fire investigator, but should begin with arriving fire-fighting units or police authorities. Lack of preservation may result in the destruction, contamination, loss, or unnecessary movement of physical evidence. Initially, the incident commander and, later, the fire investigator should secure or ensure the security of the fire scene from unnecessary and unauthorized intrusions and should limit fire suppression activities to those that are necessary.

Evidence at the fire scene should be considered not only in a criminal context, such as in traditional forensic evidence (e.g., weapons, bodily fluids, footprints), nor should it be lim-



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ited to arson-related evidence, items, or artifacts, such as incendiary devices or containers. Potential evidence at the fire scene and surrounding areas can include the physical structure, the contents, the artifacts, and any materials ignited or any material on which fire patterns appear.

14.3.1 Fire Patterns as Physical Evidence. The evidentiary and interpretative use of fire patterns may be valuable in the identification of a potential ignition source, such as an incendiary device in an arson fire or an appliance in an accidental fire. Fire patterns are the visible or measurable physical effects that remain after a fire. These include thermal effects on materials, such as charring, oxidation, consumption of combustibles, smoke and soot deposits, distortion, melting, color changes, changes in the character of materials, structural collapse, and other effects. (See Section 4.3.)

14.3.2 Artifact Evidence. Artifacts can be the remains of the material first ignited, the ignition source, or other items or components in some way related to the fire ignition, development, or spread. An artifact may also be an item on which fire patterns are present, in which case the preservation of the artifact is not for the item itself but for the fire pattern that is contained thereon.

14.3.3 Protecting Evidence. There are a number of methods that can be utilized to protect evidence from destruction. Some methods include posting a fire fighter or police officer as a sentry to prevent or limit access to a building, a room, or an area; use of traffic cones or numerical markers to identify evidence or areas that warrant further examination; covering the area or evidence with tarpaulins prior to overhaul; or isolating the room or area with rope, caution tape, or police line tape. The investigator may benefit from supervising overhaul and salvage operations.

Items found at the fire scene, such as empty boxes or buckets, may be placed over an artifact. However, these items may not clearly identify the artifact as evidence that should be preserved by fire fighters or others at the fire scene. If evidence is not clearly identified, it may be susceptible to movement or destruction at the scene.

14.3.4 Role and Responsibilities of Fire Suppression Personnel in Preserving the Fire Scene. Generally, fire officers and fire fighters have been instructed during basic fire training that they have a responsibility on the fire scene regarding fire investigation. In most cases, this responsibility is identified as recognizing the indicators of incendiarism, such as multiple fires, the presence of incendiary devices or trailers, and the presence of ignitable liquids at the area of origin (see Chapter 19). While this is an important aspect of their responsibilities in the investigation of the fire cause, it is only a small part.

Prompt control and extinguishment of the fire protects evidence. The ability to preserve the fire scene is often an important element in the investigation. Even when fire officers and fire fighters are not responsible for actually determining the origin or cause of the fire, they play an integral part in the investigation by preserving the fire scene and physical evidence.

14.3.4.1 Preservation. Once an artifact or other evidence has been discovered, preliminary steps should be taken to preserve and protect the item from loss, destruction, or movement. The person making the discovery should notify the incident commander as soon as practical. The incident commander should notify the fire investigator or other appropri-

ate individual or agency with the authority and responsibility for the documentation and collection of the evidence.

14.3.4.2 Caution in Fire Suppression Operations. Fire crews should avoid causing unnecessary damage to evidence when using straight-stream hoselines, pulling ceilings, breaking windows, collapsing walls, and performing overhaul and salvage.

14.3.4.2.1 Use of Water Lines and Hose Streams. When possible, fire fighters should use caution with straight-stream applications, particularly at the base of the fire, because the base of the fire may be the area of origin. Evidence of the ignition source can sometimes be found at the area of origin. The use of hoselines, particularly straight-stream applications, can move, damage, or destroy physical evidence that may be present.

The use of water hoselines for overhaul operations like washing down, or for opening up walls or ceilings, should also be restricted to areas away from possible areas of origin.

The use of water should be controlled in areas where the investigator may wish to look at the floor for possible fire patterns. When draining the floor of standing water, the drain hole should be located so as to have the least impact on the fire scene and fire patterns.

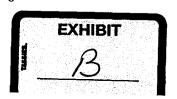
14.3.4.2.2 Overhaul. It is during overhaul that any remaining evidence not damaged by the fire is susceptible to being destroyed or displaced. Excessive overhaul of the fire scene prior to the documentation and analysis of fire patterns can affect the investigation, including failure to determine the area of origin.

While the fire fighters have a responsibility to control and extinguish the fire and then check for fire extension, they are also responsible for the preservation of evidence. These two responsibilities may appear to be in conflict and, as a result, it is usually the evidence that is affected during the search for hidden fire. However, if overhaul operations are performed in a systematic manner, both responsibilities can be met successfully.

14.3.4.2.3 Salvage. The movement or removal of artifacts from a fire scene can make the reconstruction difficult for the investigator. If the investigator cannot determine the pre-fire location of the evidence, the analytical or interpretative value of the evidence may be lost. Moving, and particularly removing, contents and furnishings or other evidences at the fire scene should be avoided until the documentation, reconstruction, and analysis is completed.

14.3.4.2.4 Movement of Knobs and Switches. Fire fighters should refrain from turning knobs and operating switches on any equipment, appliances, or utility services at the fire scene. The position of components, such as the knobs and switches, may be a necessary element in the investigation, particularly in developing fire ignition scenarios or hypotheses. These components, which are often constructed of plastics, can become very brittle when subjected to heating. Their movement may alter the original post-fire state and may cause the switch to break or to become impossible to relocate in its original post-fire position. (See 21.5.3.)

14.3.4.2.5 Use of Power Tools. The use of gasoline- or diesel-powered tools and equipment should be controlled carefully in certain locations. The refueling of any fuel-powered equipment or tools should be done outside the perimeter of the fire scene. Whenever fuel-powered equipment is used on the fire scene, its use and location should be documented and the investigator advised.



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Brief exposure to the high-temperature expanding flame front causes burn damage to the exposed skin surfaces. Often even a thin layer of clothing can protect the underlying skin from injury. Frequently, the burn injuries can be localized to the side of the body that is facing the expanding flame front. This finding can be used by the investigator as a heat and flame or explosion dynamics vector. Synthetic-fabric clothing may be melted by exposure to flash flames from deflagrations, where cotton fabrics may only be scorched.

20.8.2.4 Seismic Effect Injuries. The seismic effects of explosions are most dangerously manifested in the collapse of buildings and their structural elements. Injuries and deaths resulting from such occurrences are similar to what might be encountered by building damage from blast pressure waves.

Collapse of buildings can cause blunt trauma injuries, lacerations, fractures, amputations, contusions, and abrasions.

When examining victims of explosions, the investigator should take extreme care to scrutinize the body parts, clothing, and associated debris to find, document, and preserve items of evidence, such as clothing and any foreign objects found.

Chapter 21 Appliances

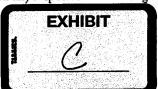
21.1 Scope. This chapter covers the analysis of appliances as it relates to the investigation of the cause of fires. The chapter concentrates on appliances as ignition sources for fires but, where applicable, also discusses appliances as ignition sources for explosions. This chapter assumes that the origin of the fire has been determined and that an appliance at the origin is suspected of being an ignition source. Until an adequate origin determination has been done, it is not recommended that any appliances be explored as a possible ignition source.

Addressed in this chapter are appliance components, which are common to many appliances found in the home and business. Sections of this chapter also deal with specific but common residential-type appliances and with how they function.

- 21.2 Appliance Scene Recording. The material presented in Chapter 13 should be used where appropriate to record the scene involving an appliance. Material presented in this section is supplemental and has specific application to appliances.
- 21.2.1 Recording Specific Appliances. Once a specific appliance(s) has been identified in the area of origin, it should be carefully examined before it is disturbed in any way. The appliance should be photographed in place from as many angles as possible. Photographs should be close-ups of the appliance as well as more distant photographs that will show the appliance relative to the area of origin, the nearest combustible material(s), and a readily identified reference point (e.g., window, doorway, piece of furniture). This reference point will greatly aid later reconstruction efforts in placing the exact location of the appliance at the time of the fire. If an appliance has been moved since the start of the fire, then the same photographs should be taken where it was found. If it can be established where the appliance was located at the time of the fire, such as by observing a protected area that matches the appliance base, or by talking to someone familiar with the fire scene prior to the fire, the appliance should be moved to its pre-fire location and the same photographs taken. This movement by the investigator may not be done until all other necessary documentation is completed.
- 21.2.2 Measurements of the Location of the Appliance. The scene should be photographed and diagrammed as described in Section 13.4. The location of the appliance within the area

of origin is particularly important. The investigator should take measurements that will establish the location of the appliance.

- 21.2.3 Positions of Appliance Controls. Special attention in the photography and diagramming should be paid to the position of all controls (e.g., dials, switches, power settings, thermostat setting, valve position), position of movable parts (e.g., doors, vents), analog clock hand position, power supply (e.g., battery and ac house current), fuel supply, and any other item that would affect the operation of the appliance or indicate its condition at the time of the fire.
- 21.2.4 Document Appliance Information. The manufacturer, model number, serial number, date of manufacture, warnings, recommendations, and any other data or labels located on the appliance should be documented. This information should be photographed, and notes should be taken, as these items may be difficult to photograph. Having notes will ensure that this valuable information is preserved. (See Chapter 13 for additional information.) It is frequently necessary to move the appliance to obtain these data, and this should be done with minimal disturbance to the appliance and to the remainder of the fire scene. In no case should the appliance be moved prior to completion of the actions in 21.2.3.
- 21.2.5 Gathering All of the Parts from the Appliance. Where the appliance has been damaged by the fire or suppression activities, every effort should be made to gather all of the parts from the appliance and keep them together. After exposure to fire, many of the components may be brittle and may disintegrate with handling, which is why it is important to document their conditions at this point. Where it is considered helpful and will not result in significant damage to the remains of the appliance, some reconstruction of the parts may be done for documentation and analysis purposes. This could include replacing detached parts and moving the appliance to its original location and position. Attempting to operate or test an appliance should not be done during the fire scene examination, as this may further damage the appliance, possibly destroying the critical clues within the appliance and its components. All testing at this point should be strictly nondestructive and only for the purpose of gathering data on the condition of the appliance after the fire. Examples of nondestructive testing include using a volt/ohmmeter to check resistance or continuity of appliance circuits.
- 21.3 Origin Analysis Involving Appliances. Chapter 4 and Chapter 15 deal with determining the origin of a fire in greater detail. The additional techniques and methodology presented here should be utilized when a fire involves an appliance. This is the case when the fire is confined to the appliance or when it is thought that a fire started by the appliance spread to involve other contents of the room.
- 21.3.1 Relationship of the Appliance to the Origin. It should be established that the appliance in question was in the area of origin. Those appliances that were clearly located outside the area of origin generally can be excluded as fire causes. In some cases, an appliance(s) remote from the area of origin may have something to do with the cause of the fire and should be included in the investigation. Examples of these are the use of an extension cord or the presence of a standing pilot on a gas appliance. Where doubt exists as to the area of origin, it should be classified as undetermined. When the origin is undetermined, the investigator should examine and document the appliances in any suspected areas of origin.



AFFIDAVIT OF DAVID W. WOLBRINK

STATE OF WISCONSIN	
) SS
COUNTY OF WASHINGTON)

DAVID W. WOLBRINK, being first duly sworn on oath, deposes and states as follows:

- 1. I am employed as Vice President of Research and Development for Broan NuTone LLC ("Broan").
- 2. The Broan fan at issue in this case is a critical piece of physical evidence which must be carefully examined and documented before any destructive testing takes place. Otherwise, evidence may be lost, destroyed or contaminated.
- 3. Before any destructive testing takes place, a protocol for the destructive testing must be in place to ensure that evidence is not spoliated in the process of such testing. In addition, before any destructive testing takes place, it is important that the parties be allowed to gather evidence concerning the fire so that they can determine what destructive testing or disassembly is appropriate or needed.
- 4. The Broan fan has many component parts. Once the fan has been disassembled or subjected to destructive testing, it would be impossible to return it to its present condition.
- 5. If Travelers is permitted to conduct destructive testing without a proper protocol, evidence could be destroyed and Broan would be severely

prejudiced by such spoliation. For example, Broan could be deprived of key defenses, Broan's ability to identify the manufacturer of the motor of the fan could be impaired, motor coil windings on the motor could be altered or broken depriving Broan of analytical and interpretive evidence, or the condition of the motor could be altered.

- 6. It is therefore important that Travelers conduct no destructive testing until a proper protocol is in place.
- 7. I have been employed by Broan for over 30 years and I have participated in numerous fire investigations concerning Broan fans. It is a commonly accepted practice for parties to agree on a protocol for conducting destructive testing to avoid spoliation of evidence.
- 8. Broan will suffer irreparable harm if Travelers is permitted to conduct destructive testing of the Broan fan without a proper protocol in place.
- 9. Conversely, I can think of no legitimate reason why Travelers must conduct destructive testing at this time without a proper protocol or how Travelers would be harmed by a delay in testing until a protocol is agreed to.

David W. Wolbrink

Subscribed and sworn to before me this $\mu^{*\nu_1}$ day of July 2002.

(Kathleen M. Peterson) Notary Public, State of Wisconsin My Commission expires: 69466

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